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APPALACHIAN NURSERIES

W. J. BILLERBECK

L. F. BILLERBECK

FAIRVIEW AVENUE
WAYNESBORO, PENNA.

LINERS

SPRING 1955



Phones:

Nurseries (Till 9 P. M.) 1179J

Home (Sundays & after 9 P. M.) 1179M



Members

American Association Nurserymen
Pennsylvania Association Nurserymen
Maryland Association Nurserymen

TERMS: Usual

PACKING CHARGES: Prices quoted
include all charges for packing.

827443



Method of Delivery

Because present day packing and transportation costs are much too high, we make deliveries with our own trucks. The trucks are equipped with special bodies, and the plants are delivered in flats; thus there is no packing charge. Deliveries are made statewide to the following: all New England states, New York, New Jersey, Pennsylvania, Delaware, Maryland, Ohio, Kentucky, Virginia and West Virginia, and some sections of North and South Carolina, Illinois, Indiana, Missouri, and Eastern Michigan. We will deliver anywhere we can accumulate orders for a full minimum load. Our smaller trucks each handle 5200 plants in 2" bands; the two larger trucks each handle 13,500. But deliveries will be made of lots of any quantities in the areas and states mentioned above.

Delivery Charges

2" banded plants average a little over 60 lb. per 100 (30 lb. per flat of 50). To establish equitable trucking charges to all points, the charges are based on the same principle as R. R. Express charges, except that the trucking charges are considerably lower. Take a shipment of 1500 (900 lbs., or 30 flats) banded plants to Trenton, New Jersey, as an illustration; Old R. R. Express Guide shows the second class charge to Trenton for the 900 lbs. as \$26.65. Deduct 25% and you have \$19.24, which would be our charge for truck delivery. The same shipment to either New York City, Dansville, or Ithaca, N. Y.; Wheeling and Hinton, W. Va.; E. Liverpool, Ohio; Blacksburg, Chatham, and Suffolk, Va., would cost exactly the same. (It is interesting to note that under the new tariff which became effective August 20th, 1953, the first-class express cost on the above shipment (900 lb.) in addition to packing cost, would amount to \$48.33 plus tax.)

Full loads of 13,500 plants, if all can be supplied in one shipment will be billed at the above rates, less 33-1/3% instead of "less 25%".

Nearby points will, of course be less, whereas more distant points will be more; but you can, by using 60 lb. per 100 plants, and Express Scale 11, less the discount applicable and calculate the exact cost to you of our trucking service. Or, write us and we will be happy to give you the figures.

A minimum charge of \$2.00 is made on small lots.



SO HELP US HANNAH--!!

You get more for your money when you use our banded liners!

Maybe we're just hardheaded about it, but we are still old-fashioned enough to believe that business goes where prices are right. Many so-called advertising experts seem to think that difference in prices should be soft-pedalled. We don't. We believe that when you have a price advantage, you have the best advertising gimmick of all.

Lower prices, of course are no advantage if the merchandise is not comparable. You will find our 2" banded plants are as good as the best from 2 $\frac{1}{4}$ " pots. In many cases you will find them much better.

How is it done? How can we produce better liners at lower prices? That's not complicated. It's just that we have short-circuited a lot of the operations of propagating plants and getting them ready for you.

The plants get what they want and need. And they get it when they need it; Sundays, holidays or any other days. But the false motions and frills are cut out. Every detail of the whole growing program is "job studied" to make it fit the overall purpose, and that is simply to produce the best liners possible at the very lowest possible prices.



Growing PAINS



The question has been asked, not once, but a number of times. "What's the big idea of all this no charge advice? Doesn't it take a lot of time, and what do you get out of it?"

Good batch of questions!

Of course it takes a lot of time. And we don't dirty up all of these pages just for the heck of it. Instead, if we can help you to make a fast buck, growing the things we are monkeying with here, you'll have to buy your liners somewhere. Maybe you'll buy them from us, and that way maybe a nickle will dribble down the line into our coffers. So the whole motive of our cacaographical (scribbling, sir) efforts is purely and simply the wickest of all wrong-doing, — selfishness. We want the nickle.

We hope we aren't being tedious with our continuous banging on this same old note. This one will be about ericaceous types of plants again. Was in '52, '53 and '54, too. But this time we've worked out a new angle, so maybe it will be worth the time it takes to read it after all.

Before we get into this thing too far, we'd like to remind you that if we were so darn smart we'd be rich. So use your own judgment if you follow through on any of these ideas.

About a third of our business is growing Azaleas, Rhododendrons and other ericaceous plants from seeds. If you have ever seen these little fellows during their first several months, you'll agree that there are times when they are small. While they are in this miniature stage they "respond" quickly to treatments of various kinds. "Respond" is hardly the correct word, because sometimes a flat of seedlings will be but a memory before they have had half a chance to experience the fine things we are trying to do for them. But that's how we learn.

The fact that the small plants do react so quickly to soils, soil conditioners, fertilizers, and spray materials, helps us much in attempting to find out quickly what they will tolerate, what helps, and what they will have no parts of. The results are usually more obvious and apparent than could be had with larger plants during a given period of time. Quite naturally, as a result of trials, with the different

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Banded Shrubs and Evergreens

For 1955 Shipment

2" BANDS EXCEPT AS NOTED

Shipments will begin about May 1st to 10th.
See "Method of Delivery" on page 2.

RATES: Prices are "per 100"; 50 or more 2" banded plants at the 100 rate; 24 (a flatfull) or more 3" banded plants at the 100 rate; 300 or more of a single variety at 5% off prices quoted; 1000 or more of a single variety at 10% off prices quoted. Minimum orders, 50 2", or 24 3" banded plants of a variety.

AZALEAS. In addition to the species and varieties listed below we have a number of kurume, kaempheri and vuykiana types, but because many are in small quantities we hesitate to list the varieties here. Write for a special Azalea list if you are interested.

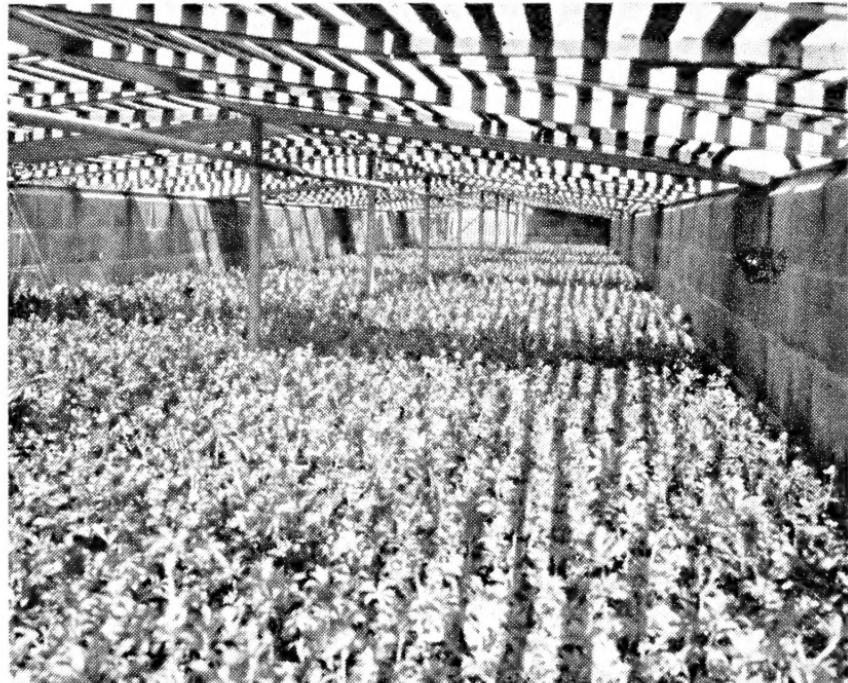
AZALEA kaempheri hybrids. (Evergreen; hardier than hinodegiri; mixed colors; predominately pink, but include some salmon and other shades to almost yellow. Actually these are mixed varieties, comprising an assortment of named kaempheri varieties.) -----

13.50

AZALEA mollis hybrids. (Mixed hybrids; the colors run the gamut from pure white through clear yellow, pink, orange and into almost clear reds. These are grown from seeds, and will contain every color. A mollis is probably the easiest of all Azaleas to grow, because it is least particular about soils, and it is of extreme hardiness.) -----

12.50

AZALEA mollis. (We have a few in 3" bands.) ----- 25.00



This is one of our Deep Frames.
It is filled with Magnolias and Hemlocks.



(GROWING PAINS continued from page 4)

materials, we have made some definite, and possibly, prejudiced judgments about them.

Take the matter of soils as an illustration. We know that we just cannot grow ericaceous plants in Waynesboro soil. We know that the addition of as little as 5% cf our native soil has a definite tendency to retard the growth of the plants. Very fine, heavy, and alkaline, it packs hard when dry, and does not drain at all well. To condition it to a loose, peaty sour state would be prohibitively expensive, and would take years.

In our bulletins of '52, '53 and '54 we attempted to give quite comprehensive reports on our experimental work with soils for this ericaceous group of plants. (Reprints of these bulletins have been made and are yours for the asking.) Very little experimental work on soil types has been done during the past year. For us, the use of straight domestic peats seems to be the solution of the soil problem.

It might be commented that up to now our recommendation of straight domestic peats for ericaceous plants has really been beamed to those growers who are located in the heavier soils areas. In '54 several "light soil" growers sent us samples of Pieris and Rhododendrons which definitely have shown signs of improper soil conditions. Such of these samples as were not entirely hopeless, we potted up into the domestic peats, and without exception the plants have greatly improved. Seems to only confirm our awkward notions. Maybe some of these "light soils" growers would not go too far astray if they were to do a little experimental work with domestic peats too.

There are a lot of nurserymen, large and small, who just won't try to grow Azaleas, Rhododendrons, or other ericaceous plants. They've tried it, and they've given it up as a bad job. Instead they buy the finished plants, and let it go at that. Most nurserymen are busy people, and they don't want to worry with "Prima Donnas". They don't want to give their valuable time to any variety or group of plants that require a lot of petting. We insist that Azaleas and Rhododendrons, etc. are positively not tempermental. We say that they are not difficult to grow. They do have a few definite needs to be happy, and if those needs are satisfied, they will take a lot of kicking around, and still bring you top money for the time you spend on them. We hope herein to explain these needs, simply, and as fully as possible, and thus induce you to get some of this easy money.

Some several dozens of nurserymen are growing them successfully now as a result of our past reports, and we trust a lot more will try this year. We've got a lot of Rhododendrons to sell.

So, if we are going to give you a thorough brain washing in this "Do it Yourself" discourse, we'll start at the beginning. That will be a short review

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Banded Shrubs & Evergreens (Continued)

AZALEA poukhanensis. (Another Korean species with extreme hardiness and less particular about soils than most Azaleas. Blooms very early in the spring with fragrant deep pink flowers about 1½" across. Grows to 4' here and blooms early in May. One of the easier Azaleas to grow. Deciduous, but almost evergreen here.)	12.50
BERBERIS thunbergi atropurpurea. (Red-leaf Japanese Barberry; restricted in wheat-growing states. But we can supply certificate.)	6.50
BUXUS sempervirens welleri. (Weller's hardy northern type. Seems to be perfectly hardy in most areas where Boxwood will not normally grow.)	12.50
CALYCANTHUS floridus. (Sweetshrub or Strawberry Shrub, or sometimes just "shrub". Chocolate brown flowers. Your grandmother used to dry and crumble in her hands for a sachet. Becoming popular again.)	8.00
CAMELLIA sasanqua Apple Blossom. (3" flowers; white with pink edge. 3" bands.)	30.00
CAMELLIA sasanqua Cleopatra. (Semi-double rose pink; compact grower. 3" bands.)	30.00
CAMELLIA sasanqua Maiden's Blush. (Single flesh pink flowers; upright fast growing plant. 3" bands.)	30.00
CARYOPTERIS Blue Mist. (Sometimes called Blue Spirea; silver-gray foliage; blooms August until frost.)	9.00
CLETHRA alnifolia. (White Summersweet; needs well drained, sour, peaty soil.)	13.50



(House B2) Azaleas, Rhododendrons and Pieris.

COTONEASTER decora. (Necklace Cotoneaster; pleasing grayish green foliage; dwarf; nice plant.)	15.00
COTONEASTER divaricata. (Graceful spreading shrub with red berries; leaves turn to scarlet in fall.)	12.50
COTONEASTER horizontalis. (Rock Cotoneaster; low spreading shrub with bright red berries in fall; likes dry, sunny places.)	15.00
CUPRESSUS lawsoniana. (Lawson's cypress; blue-green conifer, and a good one.)	17.50

about soils. Ericaceous plants need loose, friable soil which will stay that way. You just cannot take average good garden soil, mix it with the baled (imported) peats, and have soils that suit them. A good garden soil is entirely too sweet (alkaline or "limey"). If it will grow a good crop of vegetables it is just what you don't want for these ericaceous plants.

Woods earth from under oak trees is usually recommended. To collect it, if you can find it, is very time consuming and expensive. Sawdust, and baled peats, mixed with oakleaves is used by some, but it is a "hit" or "miss" program. And if you are like we are, the "hits" are what we are looking for, and "misses" we can't afford.

Years ago, we concluded that if we intended to grow liners of ericaceous plants, we'd have to have customers, and to have customers who'd buy more than once, we'd have to be able to tell them how to grow the liners. And the growing had to be worked out so that it would be direct and simple. With all he has to do, the average nurseryman isn't going to spend much time pampering any group or lot of plants.

We started off with a bale of each of every brand of imported peat moss we could find. We also collected a few bags of domestic peats from various sources. Each bale and bag was broken up into a number of experimental flats of different mixes. Soils from gardens, dry creekbeds, the mountains, and other sources, were mixed in and plants planted to each flat. The results of course, varied considerably. Unquestionably, plants in flats containing almost straight domestic peats were much better than in any others. In fact, those plants in some of the straight domestic peats made as much as 8 to 12 times the growth of the best in flats of the imported peats, whether straight or mixes.

Until 1954 we have continued to experiment with various peats and soils, and mixtures of them, but as yet we have found none which even approach the results the domestic peats give us. Because there are peat bogs in many sections of the country the chances are that you can find a nearby source. We have used peats from Michigan and Ohio with excellent results. At present our source is Pennsylvania Peat Moss, Inc., Hazleton, Penna., simply because their product is as good as any we have located, and they will give us the coarse grind we prefer. Also, they deliver with their trucks and we have no car unloading to upset the routine of the place. Being nearby, the transportation cost is negligible, and that puts the peat here at very low cost.

So, to conclude the soils phase of this diatribe, let's say that the easiest simplest, and least expensive way of preparing soils for ericaceous plants is to make up beds of straight domestic peats.

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Banded Shrubs & Evergreens (Continued)

DESMODIUM penduliflorum. (One of the few deciduous shrubs that blooms in Sept. and Oct.)	10.00
DEUTZIA gracilis. (Slender Deutzia; dwarf, with white flowers in May.)	10.00
DEUTZIA gracilis rosea. (Pink-blooming form of the gracilis.)	10.00
DEUTZIA lemoinei. (Lemoine Duetzia. Large clusters of white flowers in late spring; semi-dwarf.)	10.00
ERICA darleyensis. (Winter-blooming Heath. Low evergreen, gray-green foliage. Blooms lavender very early in spring. Makes fine pot plant. Grows easily. Good money-maker. Likes Domestic Peats.)	10.00
EUONYMUS alatus. (Winged Burningbush.)	12.50
EUONYMUS alatus compactum. (Compact Winged Burningbush.)	12.50
EUONYMUS fortunei acutus. (Excellent prostrate ground covering vine. Dark green foliage and does well in full sun to full shade. Extremely hardy.)	11.00
EUONYMUS fortunei erecta. (Some nurserymen call it small-leaved patens, but it is more uprite than patens. Good color and good plant.)	11.00
EUONYMUS patens. (One of the best evergreen shrubs. Grows to 6 feet; rich deep green foliage which remains almost all winter; easily grown.)	11.00
EUONYMUS radicans erecta. (Sarcoxie) (Hardy compact evergreen. Rapid uprite grower with foliage similar to vegetus.)	11.00
EUONYMUS radicans vegetus. (Big-leaved Wintercreeper; evergreen with scarlet fruit.)	11.00
FORSYTHIA Lynwood Gold. (Deep yellow, and one of the best new Forsythias available.)	12.50
FORSYTHIA Spring Glory. (Fine new pale yellow and very heavy blooming.)	9.00
HAMAMELIS virginiana. (Witch Hazel. Yellow ribbon-like flowers in late fall. Good in moist, shady locations.)	9.00
HYDRANGEA Fr. Nikko Blue. (New; supposed to be much hardier, and to have withstood temperatures of 20 below zero; blooms pink on alkaline soils; blue on acid soils.)	9.00
ILEX cornuta burfordi. (Burford's Chinese Holly; shiny dark green leaves; berry-bearing; hardy here; we have never considered this too hardy, but we learn that some very fine plants are growing on the grounds of the Boyce Thompson Institute at Yonkers, N. Y., and have been there for a number of years. This variety is very desirable if you can winter it.)	25.00
ILEX crenata convexa-bullata. (Lots of noise about this one! A Japanese Holly with dark, shiny green leaves; black berries; fine low foundation plants; in good demand.)	15.00
ILEX crenata rotundifolia. (Roundleaf Jap. Holly. Grows about as broad as high. Excellent broadleaved 'green.)	15.00
ILEX crenata Stokes Dwarf. (Plant patent number 887; this is a new very dwarf variety of extreme hardiness. Unlike many of the dwarf crenata types, the foliage is not straggly, but the plant forms a nice compact specimen. Grows slowly, but we predict it will be in wonderful demand as soon as the stock can be built up in the nurseries.)	20.00
ILEX crenata uprite. (Grows larger and bulkier than most of the crenatas, and has very dark green foliage. Extremely hardy.)	15.00



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Next, the mechanics of the thing. If you dig out a bed to fill with peat, you likely make for yourself a drainage problem. All ericaceous plants require large amounts of oxygen. Waterlogged soil or peat "chokes" them out, so the drainage must be good. Besides it's less work and less costly to make up beds of boards or cement blocks on top of the ground. A couple of inches of stoker clinkers, or even sandstone $\frac{3}{4}$ " up to 2" in the bottom of the bed is fine. If one side of the bottom of the bed is 3 or 4 inches higher than the other, the drainage will be better. If you use boards for the sides of the beds, better give them a very good coating of wood preservative because peats will disintegrate them pretty quickly. 8 x 16" cinder or cement blocks, just set on top of the ground in a straight line will likely prove lower in cost over a period of several years. If you use blocks, place them with the holes up, and you can drive stakes in the holes to support shade, and thus make a good looking as well as practical job.

Then, you're ready for the peat or soil. If you use domestic peats you will find the next few suggestions helpful. Fill the bed to the top of the blocks or boards with peat. Don't firm it. Water it well without too much pressure. It will settle some. Let it set for 24 hours and fill it up again. Soil tests will likely indicate that the peat is not too sour, and can stand a little "adjustment". You are shooting for a pH of about 5.0 to 5.5 and most domestic peats (not all, but most) will test very close to 6.2. You can use aluminum sulphate to lower the pH, but it's quick and then it's gone. And the aluminum sulphate, if used too liberally can be toxic to the plants. Sulphur is slow and easy, and positive. A pound of sulphur to 4 or 5 square yards is about right. Second growing season, apply a little more, say 1 lb. to 10 or 12 sq. yards.

Because domestic peats are not dehydrated, there'll be some bugs in them. Some years ago we had a carload which was loaded with cutworms, and these rascals chopped off hundreds of fine little plants before we learned what was doing the damage. DDT is good insurance. You can mix it with the sulphur and apply about 4 lbs. sulphur and 1 lb. 10% DDT dust to 20 square yards of surface. If you happen to have a lawn fertilizer distributor, you can get this DDT-sulphur mix on evenly and properly spread. They can be put together and then applied. Use DDT dust rather than liquid. It will do a better job and continue to act for several years.

When you have your bed ready next comes planting the plants. Remove the plantbands on all ericaceous plants. They root close to the surface, and the plantbands will hamper root development. Set the plants about 10" x 10" in staggered rows across the bed. Plant them about $\frac{1}{2}$ " deeper than the top of the soil ball, and firm lightly. It's best to plant from the sides, of the beds if you can, so that you will not firm the peat with your weight. After you have the plants in, water them reasonably. Don't flood them.

When the plants are planted the next matter is

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Banded Shrubs & Evergreens (Continued)

JASMINUM nudiflorum. (Winter Jasmine; bright yellow forsythia-like flowers very early in spring; foliage and stems are evergreen.)	9.00
JUNIPERUS chin. pfitzeriana. (Pfitzer's Juniper; limited supply.)	15.00
JUNIPERUS chin. pfitzeriana compacta. (Compact form of Pfitzer's Juniper; doesn't grow quite so clumsy and large as common Pfitzers. Most nurserymen who grow this consider this a much better evergreen than <i>J. pfitzeriana</i> .)	15.00
JUNIPERUS chin. pfitzeriana nana. (Very dwarf Juniper Pfitzeriana.)	16.50
JUNIPERUS communis depressa plumsa. (Andorra Juniper, or Purple Spreading Juniper; low spreading type; some don't like it, but it probably makes the nurseryman more money than any evergreen he grows.)	12.50
JUNIPERUS communis hibernica. (Irish Juniper; narrow uprite form, with blue-gray foliage.)	12.50
JUNIPERUS communis prostrata aurea. (Golden prostrate <i>J.</i> or Goldenflat Juniper.)	15.00
JUNIPERUS glauca hetzi. (Hetz's Blue Juniper; grows well; makes up quickly and a good 'green.)	15.00
JUNIPERUS sabina. (Savin Juniper.)	15.00
KOLWITZIA amabilis. (Beautybush. Does well in poor soils and is perfectly hardy. Blooms much like Abelia.)	12.50
LEUCOTHOE catesbaei. (Drooping Leucothoe or Andromeda. Does well with Azaleas and Rhododendrons.)	15.00
LIGUSTRUM ib. regelianum. (Regal Privet; and these are true "regals".)	9.00
LIGUSTRUM ib. vicary. (New golden-leaved form.)	9.00
LIGUSTRUM ov. aureum. (Golden varigated Privet; nice when you need color contrast.)	8.00



One of our Potting Rooms.
Plenty of elbow room.



(GROWING PAINS continued from page 10)

shade. Most ericaceous plants will grow in full sun or almost full shade, but young plants will make better progress in partial shade. They stay moist longer and thus will not need to be watered so often. Shade should not be too high. Eight or ten inches from the plant tops is good. If the shade is too high, you may have some sunburn along the edges of the beds on extremely bright days when the sun is hot early and late in the day. Shaded plants are inclined to grow more upright, reaching for the sun. You may wish to remove the shade in early spring at the start of the second growing season. By that time the plants should have enough spread to keep the soil pretty much shaded, and for the ericaceous group the shaded soil is very desirable.

Now comes one of the most important jobs of all,—the watering. Many growers have the notion that ericaceous plants should be kept pretty wet. That is not correct. Instead, these plants like moist, cool soil, not wet. So water them when they need it, and only when they need it. Many times the surface of peat will appear to be dry when it is really moist enough. Poke your finger down into it, and if only the surface is dry, don't water. Watering should never be done while the sun is hot. 'Good idea to water in the evenings, or early in the morning during the hottest of the summer months. Sometimes new growth on Rhododendrons and Pieris actually wilts during the heat of the day, and yet the medium is amply moist. They just grow a little too fast, and overnite they will catch up. Don't water them just because such wilt appears. Check the medium first, and water when the medium appears to need it.

Most of the domestic peats are very high in nitrogen. In fact, they are really a little too high with the result that your plants may go into the first winter a little too soft and suffer some freeze damage. So sometime during late July or early August, it will be well to make a light application of superphosphate and potassium sulphate. That will, to some extent offset the high nitrogen. It might be mentioned that both of these elements are inclined to deplete in soils of high acidity. So these applications are perfectly safe procedure.

In the first summer or fall, if you are fortunate enough to find a source of oak leaves, a mulch of a few inches of these is wonderful. Other materials which may be used as mulches are wood chips, shavings, leaves other than oak, or even sawdust, with oak sawdust preferred. Most of these use up vast quantities of nitrogen as they disintegrate, and nitrogen in the form of ammonium sulphate should be added in the spring. Nitrate of soda should not be used, because it will raise the pH level, and thus upset the program. If you are unable to find any other satisfactory mulch material use some of the imported peats of poultry litter size. Don't make the mulch very deep unless it is of material which will greatly lessen in volume as it decomposes. Five inches of oak leaves will likely be 1½" by spring, but

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Banded Shrubs & Evergreens (Continued)

MAGOLIAS. (See page 17)	-----	-----
MAHONIA aquifolia. (Oregon Hollygrape; evergreen shrub with yellow berries and holly-like foliage.)	-----	13.50
MAHONIA aquifolia. (We have a few in 3" bands.)	-----	25.00
MYRICA pensylvanica. (Northern bayberry or candleberry; fairly large shrub; gray berries and bark are highly fragrant.)	-----	13.50
PHILADELPHUS virginalis. (Virginal mockorange; stock plants from which cuttings were taken were "rogued" several years to leave only true double-flowering type.)	-----	12.50
PIERIS floridunda. (Mountain Pieris; ericaceous evergreen shrub with bell-shaped flowers in racemes. Needs peaty soils. We have them in excellent supply, and can book large orders for them.)	-----	15.00
PIERIS japonica. (Evergreen Japanese Pieris; ericaceous; in great demand; supply somewhat limited.)	-----	15.00
POTENTILLA Gold Drop. (Small compact shrub; 2 to 2½' high with fern-like leaves; blooms June to October; hardy.)	-----	9.00
PYACANTHA cocc. lalandi. (Laland's Firethorn. Thorny bush with orange berries; sells well. Keep it planted in pots; it is difficult to transplant when it gets larger.)	-----	12.50
RETINOSPORA ob. crippsi. (Golden semi-dwarf form. The obtusa Retinosporas are really nice evergreens; much better than the better known R. pisifer forms.)	-----	22.50
RETINOSPORA ob. gracilis. (Grows very much like the well known plumosa, in form, except that it is probably a little larger at the base, and somewhat slower growing. A good evergreen.)	-----	22.50
RETINOSPORA plumosa. (Plumed Retinospore; grows easily and quickly and stands shearing well; plant for quick turnover.)	-----	12.50
RETINOSPORA plumosa aurea. (Golden-tipped form of the above.)	-----	12.50
RETINOSPORA plumosa aurea GOLDDUST or Lovetti. (More dwarf, with tips of foliage golden-flecked; very nice Ret.)	-----	12.50
RETINOSPORA plumosa lutescens. (Football Cypress. Low, golden-flecked and one of the better Ret's.)	-----	12.50
RHODODENDRON carolinianum. (Carolina Rhod. nursery grown seedlings, hardy over wide area; pink blooms earlier than most Rhod.)	-----	15.00
RHODODENDRON carolinianum. (We have a few in 3" bands.)	-----	30.00
RHODODENDRON catawbiense. (Catawba Rhod. nursery-grown seedlings, hardy; buds deep purplish-red, open to crimson.)	-----	15.00
RHODODENDRON catawbiense. (We have a few in 3" bands.)	-----	30.00
RHODODENDRON hybrid seedlings. (Nursery-grown seedlings from seeds of red blooming hybrids.)	-----	15.00
RHODODENDRON maximum. (Rosebay Rhododendron; nursery-grown seedlings; twice transplanted, as are all of our Rhod.)	-----	15.00
SALIX purpurea nana. (Blue Asiatic Willow; one of the very best hedge plants. It will grow quickly in your fields to a fine money maker.)	-----	8.00
SPIREA Anthony Waterer. (And these are true without mixtures.)	-----	9.00



(GROWING PAINS continued from page 12)

5" of peat litter will likely be nearer 4" in the spring. You can get too much on, and "choke" the plants.

We prefer to keep away from chemical fertilizers as much as possible, and use dehydrated cow manure or cottonseed meal in the early spring. After applying either, we find that it is a good practice to apply about two tablespoons of Epsom Salts (for magnesium) per gallon of water to the square yard of surface. It may be applied dry, and watered in, but we prefer to use it in solution, simply because we believe that some of it is absorbed through the foliage. Naturally some wiseacre had to suggest that it might be simpler to feed the salts to the cow, and thus short circuit an operation.

Fortunately, most ericaceous plants send out signals when they are unhappy. Azalea leaves come up with a discoloration called chlorosis, and most of the other ericaceous plants present some individualistic hang-dog sign if all is not well with them. Chlorosis in Azaleas has been called a disease, which it is not. It's strictly an indication that something is wrong below. So don't spray the plants with one of the Chelated Irons, which are so widely advertised, and figure that you have cured the trouble. You might as well take an aspirin when your corns hurt. It's the same kind of logic.

First, look for these simple things; has the growing medium compacted? Is it waterlogged? If neither, the probability is that the pH has crawled up. City water (hard) can do it. Sprays containing limes, or fertilizers, which leave a calcium residue such as nitrate of soda; mulches which have used up the nitrogen; or too heavy mulch, might be the trouble.

If the pH is too high and all else seems reasonable, try about 2 or 3 pounds of aluminum sulphate to 100 square feet (4 x 25 ft. of bed). That will give them a quick soil adjustment, but it won't last too long. So go back over the same beds with about 1½ lbs. of sulphur to 100 sq. feet. Then foliage spray the Chelated Iron to set the plants back on an even keel. Your county agent can give you soil tests if you do not have a testing kit. Or, write us describing the trouble, and we'll try to be of help.

Maybe what we call our mind is wandering a little off the subject at hand, but we can't resist the temptation to mention that if you do set up to grow Rhododendrons and Azaleas with these domestic peats, you open some new vistas. In these same beds you can grow such things as Clethras, Callunas, Ericas, Gordonia (Franklinia), species Rhododendrons and Azaleas, Pieris floribunda, and P. japonica, Kalmias, Leucothoe, Camellias, and many other similar types of plants including some varieties of Azaleas which are tagged as not being hardy in your area.

Any sick or undernourished plants, ericaceous or otherwise, have winter difficulties. Varieties or kinds

(Continued on page 16)



Banded Shrubs & Evergreens (Continued)

SPIREA collosa alba. (S. japonica alba; white Japanese Spirea, dwarf for delivery in summer and fall of '55.)	10.00
SPIREA prunifolia plena. (True Bridalwreath; rich fall coloring.)	9.00
SPIREA thunbergi. (Feathery light green foliage; pure white flowers in April and May.)	9.00
TAXUS baccata repandens. (Spreading English Yew.)	15.00
TAXUS cuspidata spreading. (Spreading Jap. Yew. You can't have too many.)	12.50
TAXUS cuspidata capitata. (Upright Japanese Yews from tip cuttings.)	15.00
TAXUS cuspidata nana. (True dwarf Japanese Yew. "Brevifolia" type.)	12.50
TAXUS media coccinea. (Cascios Yew. We don't want to be responsible for naming more Yews, but this is kept separate from browni because it is of a darker color, and more rotund compact form.)	12.50
TAXUS media wellesleyana. (Dense broad columnar, with very dark foliage.)	12.50
THUJA occ. elegantissima. (Gold-tipped Arborvitae; one of the best Arborvitae.)	12.50
THUJA occ. globosa Woodwardi. (Probably one of the best of the globe Arborvitae.)	12.50
THUJA occ. nigra. (The dark green form of American Arborvitae.)	12.50
THUJA occ. pyramidalis. (Pyramidal Arborvitae. Ours is a strain selected for good winter color and more compact growth.)	12.50
THUJA occ. wareana. (Ware's or Siberian Arborvitae; broad pyramid of superior hardiness.)	12.50
TSUGA canadensis. (Canadian Hemlock; see page 17)	
VIBURNUM dilatatum. (Linden Viburnum.)	12.50
VIBURNUM opulus sterilis. (Common Snowball.)	9.00
VIBURNUM setigerum. (Planted for its abundance of red berries.)	12.50
WEIGELA Eva Rathke. (True type; red Weigela; one of our specialities.)	9.00
WEIGELIA floribunda. (Crimson Weigela; taller growing crimson flowering.)	9.00
WEIGELA nana variegata. (Varigated leaf Weigela.)	9.00

YOU CAN'T GET JAPANESE BEETLES
FROM US!

Everything we have on the place, including stock in pots, bands and in the field is certified by the U. S. D. A. to be free of Japanese Beetles. Ask for certificate if your's is a certified nursery.



(GROWING PAINS continued from page 14)

which are perfectly hardy in your area will winter-kill if they are not growing properly. Too rank growth from too much push on the nitrates, or lack of vigor because of lopsided fertilization, or too heavy mulches, too wet, too dry, or soils which compact too much, are to be avoided. Healthy, happy plants will take some pretty rough weather, and like it.

Bugs you will have. But with all of the modern chemicals, control of insects and diseases is comparatively simple. Over a period of some years, together with the chemist of a local firm, we have worked out a nicely balanced dust which gives us wonderful control of insects and leaf diseases. This material has been offered by the manufacturers under the trade name of "PEST-HEX". At the moment, the new so-called "Miller Act" has all of the chemical manufacturers in a dither, and unless the law is changed, very likely many of the "packaged goods" manufacturers will pull their brands off the market. It seems that under this Miller Act (Pure Food and Drug-Not Dept. of Agriculture) if you spray your petunias, and your cat comes searching for a nice cool place to bury a bone, and gets sick and then ups and dies, the manufacturer has to stand for the cat. The act makes the maker responsible for accidents to humans and animals.

So PEST-HEX as such may not be available but you can have the same mixture made locally. Or you can buy it from most chemical firms for "experimental purposes". It contains:

Lindane	2 %
Captan	5 %
Aramite	4½ %
Inert	88½ %

(Continued on page 18)



We like to send out nice plants like these.



Perennial Liners in Plant Bands

For Spring Shipment

2" BANDS

RATES: Prices are "per 100"; 50 or more 2" banded plants at the 100 rate; 24 (a flatfull) or more 3" banded plants at the 100 rate; 300 or more of a single variety at 5% off prices quoted; 1000 or more of a single variety at 10% off prices quoted. Minimum orders, 50 2", or 24 3" banded plants of a variety.

DICENTRA. (Bleedingheart.)

<i>eximia.</i> Fernleaved type.	8.00
<i>spectabilis.</i> True old-fashioned.	10.00

PHLOX SUBULATA. (Mountain Pinks.)

<i>alba.</i> Pure white	7.50
<i>atropurpurea.</i> Rich wine red.	7.50
Emerald Blue. Compact type new	7.50
<i>rosea.</i> Rose pink.	7.50
<i>vivid.</i> Pink with dark eye.	7.50

Liners in Clay Pots

RATES: Prices are "per 100", 25 or more at 100 rate; 300 or more of a single variety at 5% off prices quoted; 1000 or more of a single variety at 10% off prices quoted; not less than 25 of a variety sold.

Plants are left in the pots when delivered.

MAGNOLIAS

<i>alexandrina.</i> (Large rosey-purple. Good Grower.) 3" pots	35.00
<i>alexandrina.</i> 4" pots	50.00
<i>soulangeana.</i> (Pink flowers.) 3" pots	35.00
<i>soulangeana.</i> 4" pots	50.00
<i>soulangeana lennei.</i> (Later than soul. Deep purple blooms.) 3" pots	35.00
<i>soulangeana nigra.</i> (Tulip shaped; deep purple.) 3" pots	35.00
<i>soulangeana nigra.</i> 4" pots	50.00
<i>stellata.</i> (Star Magnolia. Semi-dwarf; white fragrant flowers.) 3" pots	35.00

TSUGA canadensis. 3" pots. (Canadian Hemlock.) 18.00



(GROWING PAINS continued from page 16)

The inert should not have a calcium reaction, but should be neutral or slightly acid in reaction. Your chemical firm will know what to use for the inert to produce a neutral or slightly acid reaction. Use 4 tablespoons to one gallon of water, if you use it as a spray. We prefer to use it as a dust. It's simpler. For outside dusting borrow one of your wife's sheerest sox, dump the dust in it and just shake it over the plants when there is no wind. Goes quick and does a good job.

This mix will kill almost any bug that walks except possibly scales, and it will kill them too, if you get it on at the right moment. Mealy bug may take several applications, but it will get them too. It is not harmful to warm blooded animals. Of late we have been having a 1% malethion mixed in some, but because this latter substance has such a horrible odor, we use it only occasionally. Malethion is supposed to be one of the best of the bug killers however, and is supposed to give perfect control of scales.

Dusts can be applied regardless of hot weather, but sprays will burn foliage at temperature over 90 degrees.

Incidentally, the above dust (or spray material, if you



Mostly Rhododendrons, Pieris and Azaleas.

prefer spraying) may be used on almost any kinds of plants for control of insects and leaf diseases. It will not burn Viburnums, for instance, and the lady of our house uses it on all of her house plants. (Try the Blue Ridge Fruit Exchange, Waynesboro, Penna., for PEST-HEX.)

So there you have the story of how to profitably and

(Continued on page 19)



(GROWING PAINS continued from page 18)

easily grow ericaceous plants. There is much more technical knowledge to be desired, to be sure, but sometimes we wonder if we can't do just as good a job "flying by the seat of our pants". When someone comes up with what looks like a good idea, we often-times want to try it. And really, the quickest and simplest way is to run a batch of plants through, and see what happens.

A very fine book, authoratative and interesting is "The Azalea Handbook" by a group of members of the American Horticultural Society. If interested order it from the American Horticultural Society, 1600 Bladensburg Rd., N. E., Washington, D. C. You will find it a most complete and up to date record of varieties and information. Might pay you to have a copy in your library.



About Sundays

Unfortunately our plants don't know about Sunday. Greenhouses and frames need ventilation and watering Sundays as well as any other days. So we are here. And you are perfectly welcome to visit us on Sundays after 9:30 A.M. And you are perfectly welcome to pick up stock on Sundays if you wish. However, because only one person will be here, we find it impossible to fill orders on Sundays. If you wish to pick up stock on Sundays do let us know sometime not later than Friday night (so that the orders will go out for filling on Saturday) prior to the Sunday you will call.

During our shipping season we start loading our trucks at 3:00 P.M. Sundays, and therefore we must limit Sunday visits to that hour during the rush.



MY COMPETITORS

MY COMPETITORS sometimes do as much for me as do my friends. My friends are too polite to point out my weaknesses, but my competitors go to great expense to advertise them.

MY COMPETITORS are efficient, diligent and attentive. They make me continually search for ways to improve my service.

MY COMPETITORS would take my business away from me if they could. This keeps me alert to hold what I have, get and create even more.

MY COMPETITORS prevent me from becoming lazy, incompetent and careless. I need the discipline they enforce upon me.

MY COMPETITORS deserve my highest praise. I salute them. They have been good to me.

BULK RATE

U. S. DEPARTMENT OF AGRICULTURE

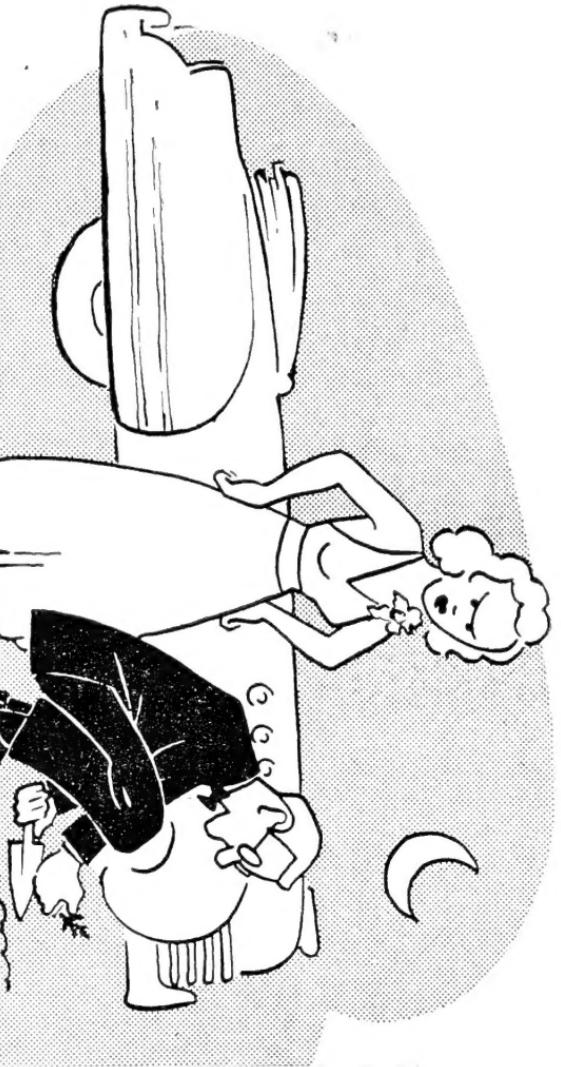
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**PLANTS IN BANDS
CAN BE PLANTED AT YOUR CONVENIENCE**